MARKED UP VERSION OF AMENDED CLAIMS PURSUANT TO 37 CFR § 1.121(c)(1)(ii)

1. (Amended) A mobile telephone communications system having a multi-level distributed architecture, said system comprising:

a plurality of base station transceiver subsystems (BTSs) arranged across a plurality of cells, each base station transceiver subsystem (BTS) [having a capability] operable for establishing a radio frequency interface with a subscriber unit in conjunction with a telephone call;

at least one first level PSEL unit coupled to a prescribed plurality of base station transceiver subsystems, said at lease one first level PSEL unit [means] for implementing a first level power control and frame selection of compressed packet data in conjunction with the telephone call, each said first level PSEL unit being [coupled to and] positioned proximate a respective prescribed plurality of base station transceiver subsystems;

second level PSEL unit coupled to said at least one first level PSEL unit, said second level PSEL unit [means] for implementing a second level power control and frame selection of compressed packet data in conjunction with the telephone call[, said second level PSEL coupled to said at least one first level PSEL];

router coupled to said second level PSEL unit, said second level PSEL being coupled between said at least one first level PSEL unit and said router on a BTS-side of said router, said router for routing compressed packet data in conjunction with the telephone call[to and] from said at least one first level PSEL unit through said second level PSEL unit and to said at least one first level PSEL unit through said second level PSEL unit; and

at least one CSEL unit coupled between said router and a prescribed mobile switching center (MSC) on an MSC-side of said router, said at least one CSEL unit separate from said at least one first level PSEL and said second level PSEL [means] for implementing call processing and call management in conjunction with the telephone call, said at least one CSEL unit [coupled between said router and a prescribed mobile switching center (MSC) and] further being positioned proximate the MSC, [wherein] said router [is] further for routing compressed packet data between said second level PSEL unit on the BTS-side of said router [to] and [from] said at least one CSEL unit on the MSC-side of said router.

2. (Amended) The system of claim 1, wherein

said at least one first level PSEL unit includes a plurality of first level PSELs for implementing a first level power control and frame selection, the plurality of first level PSELs being coupled to and positioned proximate a respective prescribed plurality of base station transceiver subsystems, further wherein

said second level PSEL unit operates in either of two modes, i) a first mode including a pass-through mode wherein frame selection is performed by a first level PSEL and ii) a second mode, wherein a particular movement of the subscriber unit gives rise to the occurrence of a soft handoff between BTSs of different first level PSELs and said second level PSEL operates to [handles] handle the soft handoff while placing respective first level PSELs in a pass-through mode.

9. (Amended) A mobile communications system having a multi-level distributed architecture, said system comprising:

a plurality of base station transceiver subsystems (BTSs) arranged in cells, each base station transceiver subsystem (BTS) [having a capability] operable for

establishing a radio frequency interface with a subscriber unit in conjunction with a telephone call;

PSEL means coupled to and being positioned proximate said plurality of base station transceiver subsystems, said PSEL means for implementing a power control and frame selection of compressed packet data in conjunction with the telephone call[, said PSEL coupled to and being positioned proximate said plurality of base station transceiver subsystems];

router coupled to said PSEL means on a BTS-side of said router, said router for routing compressed packet data to and from said PSEL means; and

CSEL means [for implementing call processing and call management in conjunction with the telephone call, said CSEL] coupled between said router and a prescribed mobile switching center (MSC) on an MSC-side of said router and further being positioned proximate the MSC, said CSEL means being separate from said PSEL means, [wherein] said router [is] further for routing compressed packet data between said PSEL means on the BTS-side of said router [to] and [from] said CSEL means on the MSC-side of said router.

10. (Amended) The system of claim 9, wherein said PSEL includes at least one first level PSEL for implementing a first level power control and frame selection, the at least one first level PSEL being coupled to and positioned proximate a respective prescribed plurality of base station transceiver subsystems, said system further comprising:

second level PSEL means for implementing a second level power control and frame selection in conjunction with the telephone call, said second level PSEL coupled to and positioned proximate the at least one first level PSEL, wherein upon a particular movement of the subscriber unit giving rise to the occurrence of a soft

handoff between BTSs of different first level PSELs, said second level PSEL [operates to handles] is configured to handle the soft handoff and places the respective first level PSELs in a pass-through mode, further wherein said router routes compressed packet data to and from the at least one first level PSEL through said second level PSEL.

17. (Amended) A method for establishing a multi-level distributed architecture for a mobile telephone communications system, said method comprising the steps of:

providing a plurality of base station transceiver subsystems (BTSs) arranged across a plurality of cells, each base station transceiver subsystem (BTS) [having a capability] operable for establishing a radio frequency interface with a subscriber unit in conjunction with a telephone call;

implementing a first level power control and frame selection of compressed packet data in conjunction with the telephone call with the use of at least one first level PSEL unit, each first level PSEL unit being coupled to and positioned proximate a respective prescribed plurality of base station transceiver subsystems;

implementing a second level power control and frame selection of compressed packet data in conjunction with the telephone call with the use of a second level PSEL unit, the second level PSEL unit coupled to the at least one first level PSEL unit;

routing compressed packet data in conjunction with the telephone call [to and] from the at least one first level PSEL unit through the second level PSEL unit and to the at least one PSEL unit through the second level PSEL unit with the use of a router coupled to the second level PSEL unit on a BTS-side of the router; and

implementing call processing and call management in conjunction with the telephone call with the use of at least one CSEL unit, the at least one CSEL unit

being separate from the at least one first level PSEL unit and the second level PSEL unit, the at least one CSEL unit coupled between the router and a prescribed mobile switching center (MSC) on an MSC-side of the router, the at least one CSEL unit [and] further being positioned proximate the MSC, wherein the router is further for routing compressed packet data between the second level PSEL unit on the BTS-side of the router [to] and [from] the at least one CSEL unit on the MSC-side of the router.

18. (Amended) The method of claim 17, wherein

the at least one first level PSEL includes a plurality of first level PSELs for implementing a first level power control and frame selection, the plurality of first level PSELs being coupled to and positioned proximate a respective prescribed plurality of base station transceiver subsystems, further wherein

the second level PSEL operates in either of two modes, i) a first mode including a pass-through mode wherein frame selection is performed by a first level PSEL and ii) a second mode, wherein a particular movement of the subscriber unit gives rise to the occurrence of a soft handoff between BTSs of different first level PSELs and the second level PSEL [operates to handles] is configured to handle the soft handoff while placing respective first level PSELs in a pass-through mode.

22. (Amended) A method of implementing a multi-level distributed architecture in a mobile communications system, said method comprising the steps of :

providing a plurality of base station transceiver subsystems (BTSs) arranged in cells, each base station transceiver subsystem (BTS) [having a capability] operable for establishing a radio frequency interface with a subscriber unit in conjunction with a telephone call;

implementing a power control and frame selection of compressed packet data in conjunction with the telephone call with the use of a PSEL unit, the PSEL unit coupled to and being positioned proximate the plurality of base station transceiver subsystems;

routing compressed packet data to and from the PSEL unit with the use of a router coupled to the PSEL unit on a BTS-side of the router; and

implementing call processing and call management in conjunction with the telephone call with the use of a CSEL unit, the CSEL unit coupled between the router and a prescribed mobile switching center (MSC) on an MSC-side of the router and further being positioned proximate the MSC, the CSEL unit being separate from the PSEL unit, [wherein] the router [is] further for routing compressed packet data [to and from] between the PSEL unit on the BTS-side of the router and the CSEL unit on the MSC-side of the router.

23. (Amended) The method of claim 22, wherein the PSEL unit includes at least one first level PSEL for implementing a first level power control and frame selection, the at least one first level PSEL being coupled to and positioned proximate a respective prescribed plurality of base station transceiver subsystems, said method further comprising the step of:

implementing a second level power control and frame selection in conjunction with the telephone call with the use of a second level PSEL, the second level PSEL coupled to and positioned proximate the at least one first level PSEL, wherein upon a particular movement of the subscriber unit giving rise to the occurrence of a soft handoff between BTSs of different first level PSELs, the second level PSEL operates to [handles] handle the soft handoff and places the respective first level PSELs in a

pass-through mode, further wherein the router routes compressed packet data to and from the at least one first level PSEL through the second level PSEL.

REMARKS

By this amendment, claims 1, 2, 9, 10, 17, 18, 22 and 23 have been amended. Claims 1-26 remain in the application. Re-examination and reconsideration of the application, as amended, are respectfully requested.

Claim 1 has been amended to more clearly define the invention. As now presented, Claim 1 calls for a mobile telephone communications system having a multi-level distributed architecture, said system comprising: a plurality of base station transceiver subsystems (BTSs) arranged across a plurality of cells, each base station transceiver subsystem (BTS) operable for establishing a radio frequency interface with a subscriber unit in conjunction with a telephone call; at least one first level PSEL unit coupled to a prescribed plurality of base station transceiver subsystems, said at lease one first level PSEL unit for implementing a first level power control and frame selection of compressed packet data in conjunction with the telephone call, each said first level PSEL unit being positioned proximate a respective prescribed plurality of base station transceiver subsystems; second level PSEL unit coupled to said at least one first level PSEL unit, said second level PSEL unit for implementing a second level power control and frame selection of compressed packet data in conjunction with the telephone call; router coupled to said second level PSEL unit, said second level PSEL being coupled between said at least one first level PSEL unit and said router on a BTS-side of said router, said router for routing compressed packet data in conjunction with the telephone call from said at least one first level PSEL unit through said second level PSEL unit and to said at least one first level PSEL unit through said second level PSEL unit; and at least one CSEL unit coupled between said router and a prescribed mobile switching center (MSC) on an MSC-side of said router, said at least one CSEL unit separate from said at least one first level

PSEL and said second level PSEL for implementing call processing and call management in conjunction with the telephone call, said at least one CSEL unit further being positioned proximate the MSC, said router further for routing compressed packet data between said second level PSEL unit on the BTS-side of said router and said at least one CSEL unit on the MSC-side of said router.

In the office action, the examiner rejected claim 1 as being unpatentable over **Danne et al.** (U.S. 5,761,619) in view of **Baldwin et al.** (U.S. 5,633,868). The examiner stated:

"In regard to claim 1, **Danne** teaches:

a cellular telecommunications system having a multi-level distributed architecture (Fig.3) comprises:

"a plurality of base station transceiver subsystems (203, Fig. 3; See Col. 9, Lines 4-12) arrange across a plurality of cells (Fig. 3; See Col. 9, Lines 22-27), each base station transceiver subsystem (BTS) has a capability for establishing a radio frequency interface with a subscriber unit in conjunction with a telephone call" (Fig. 3; See Col. 9, Lines 62-67 and Col. 10, Lines 1-24);

"first level PSEL" (211, Fig. 3; See Col. 9, Lines 4-9) means for implementing compressed packet data in conjunction with the telephone call, each "first level PSEL" being coupled to and positioned proximate a prescribed plurality of "base station transceiver subsystems" (Fig. 3; See Col. 9, Lines 33-37 and Lines 62-67; Col. 10, Lines 1-24);

"second level PSEL" (211", Fig. 3; See Col. 9, Lines 4-9) is coupled to at least one "first level PSEL" (Fig. 3; See Col. 9, Lines 37-46);

"router" (211', Fig. 3; See Col. 9, Lines 4-9) is coupled to "second level PSEL" for routing compressed packet data to and from "first level PSEL through second level PSEL";

"CSEL" (211'", Fig. 3; See Col. 9, Lines 4-9) is coupled between "router" and a "prescribed mobile switching center" (105, Fig. 3, See Col. 9, Lines 51-55), wherein "router is further for routing compressed packet data to and from at least one CSEL" (Fig. 3; See Col. 9, Lines 33-40).

Danne does not teach "power control" and "frame selection" for "first and second level PSEL", "call processing" and "call management" for "CSEL".

Baldwin teaches "frame selection" (Fig. 3; See Col 9, Lines 24-28), "power control" (Fig. 3; See Col 8, Lines 54-56 and Col 16, Lines 53-63), "call processing" (Fig. 3; See Col 13, Lines 2-19) and "call management" (Fig. 3; See Col 12, Lines 45-68) in the Virtual Circuit Management in Cellular Telecommunications.

Danne discloses "PSEL" and "CSEL" in the Distributed Telecommunications System with exception of functions as "power control", "frame selection", "call processing" and "call management". **Baldwin** discloses functions as "power control", "frame selection", "call processing" and "call management" for improving the switching and service control function in the Virtual Circuit Cellular Telecommunications.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to add "call processing" and "call management" functions to "CSEL" as taught by **Baldwin**, "power control" and "frame selection" functions as taught by **Baldwin** to "first and second level PSEL" in the Distributed Telecommunications System as taught by **Danne**.

The motivation for adding "call processing", "call management", "power control" and "frame selection" methods to the Distributed Telecommunications System as taught by **Danne** being that it provides greater capacity of transport line and improves service control, thus reduces a system operating cost and network blocking."

Applicant traverses this rejection on the grounds that these references are defective in establishing a prima facie case of obviousness.

As the PTO recognizes in MPEP § 2142:

> ... The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness...

In the present case, neither reference teaches the provision of providing a multi-level distributed architecture having: at least one first level PSEL unit for implementing a first level power control and frame selection of compressed packet data, each first level PSEL unit being positioned proximate a respective prescribed

plurality of base station transceiver subsystems; second level PSEL unit coupled to the at least one first level PSEL unit, the second level PSEL unit for implementing a second level power control and frame selection of compressed packet data; router coupled to the second level PSEL unit, the second level PSEL being coupled between the at least one first level PSEL unit and the router on a BTS-side of the router, the router for routing compressed packet data in conjunction with the telephone call from the at least one first level PSEL unit through the second level PSEL unit and to the at least one first level PSEL unit through the second level PSEL unit; and at least one CSEL unit coupled between the router and a prescribed mobile switching center (MSC) on an MSC-side of the router, the at least one CSEL unit separate from the at least one first level PSEL and the second level PSEL for implementing call processing and call management in conjunction with the telephone call, the at least one CSEL unit further being positioned proximate the MSC, the router further for routing compressed packet data between the second level PSEL unit on the BTS-side of said router and the at least one CSEL unit on the MSC-side of the router. Thus, the rejection is now improper since, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. In this context, 35 USC §103 provides that:

> A patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the *subject matter* as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains ... (Emphasis added)

Since all the limitations of claim 1 have not been met by the Danne et al. and the Baldwin et al. patents, it is impossible to render the subject matter as a whole obvious. Thus the explicit terms of the statute have not been met and the examiner

has not borne the initial burden of factually supporting any *prima facie* conclusion of obviousness.

Therefore, claim 1, as well as dependent claims 2-8 are allowable and an early formal notice thereof is requested.

Independent claims 9, 17, and 22 contain limitations similar to those contained in claim 1. Accordingly, for reasons similar to those above with respect to claim 1, claims 9, 17 and 22, as well as dependent claims 10-16, 18-21, and 23-26 are allowable and an early formal notice thereof is requested.

The amendments herein are fully supported by the original specification and drawings, therefore, no new matter is introduced.

In view of the above, it is respectfully submitted that claims 1-26 are in condition for allowance. Accordingly, an early Notice of Allowance is courteously solicited.

Respectfully submitted,

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On 10/1/01

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